FORTHCOMING PAPERS

The following papers have been accepted for publication in forthcoming issues. Further details are available **from the corresponding author** where an e-mail address or fax number is given. A regularly updated list is available by anonymous ftp from **ftp.shef.ac.uk** in the directory **pub/uni/companies/apt**

ASMUSSEN, SOREN and KELLA, OFFER Rate modulation in dams and ruin problems • *asmus@maths.lth.se*

ASMUSSEN, SOREN and NIELSEN, HANNE MANDRUP Ruin probabilities via local adjustment coefficients • *asmus@iesd.auc.dk*

ASYMONT, I. M., FAYOLLE, G. and MENSHIKOV, M. V. Random walks in a quarter plane with zero drifts: transience and recurrence • *guy.fayolle@inria.fr*

BALL, FRANK and CLANCY, DAMIAN The final outcome of an epidemic model with several different types of infective in a large population

BANJEVIC, DRAGAN Recurrent relations for distribution of waiting time in Markov chain

BARBOUR, A. D. and BROWN, TIMOTHY C. Approximate versions of Melamed's theorem • *tim@stats.mu.oz.au*

BLASZCZYSZYN, BARTLOMIEJ and ROLSKI, TOMASZ Expansions for Markov-modulated systems and approximations of ruin probability • *rolski@math.uni.wroc.pl*

BOROVKOV, K. A. On crossing times for multidimensional walks with skip- free components

BOROVKOV, ALEXANDER A. Asymptotic expansions for functionals of dilation of point processes

BOROVKOV, K. and PFEIFER, D. On improvements of the order of approximation in the Poisson limit theorem

BÖHM, W. and PANNY, W. Simple random walk statistics Part II: Continuous time results

CAMPBELL, L. L., MCKELLIPS, A. L. and WITTKE, P. H. Distributions and expectations of singular random variables • *campblll@llc.mast.queens.ca*

CHAO, XIULI and DAI, LIYI A monotonicity result for a single server loss system • *chao@hertz.njit.edu*

CHAUDHRY, M. L. and GUPTA, U. C. Performance analysis of the discrete time $GI/Geom/1/N$ queue • *math@rmc.ca*

COHEN, ARTHUR and SACKROWITZ, HAROLD B. On stochastic ordering of random vectors • *ACOHEN@zodiac.rutgers.edu*

COHEN, URI and WEISSMAN, ISHAY The extremal index and clustering of high values for derived stationary sequences

COMMAULT, C. and CHEMLA, J. P. An invariant property of phase-type representations and some applications • *chemla@univ-tours.fr*

DHAR, SUNIL K. and JIANG, XULUN Probability bounds on the finite sum of the binary sequence of order k • *sunidh@stat.njit.edu*

DOMINÉ, MARCO Moments of the first passage time of a Wiener process with drift between two elastic barriers • *Marco.Domine@Mathematik.Uni-Magdeburg.de*

DOMINÉ, MARCO First passage time distribution of a Wiener process with drift concerning two elastic barriers • *Marco.Domine@Mathematik.Uni-Magdeburg.de*

DU, CHARLES A monotonicity result for a single server queue subject to a Markov modulated Poisson process

FALIN, G. A heterogeneous blocking system in a random environment • *falin@nw.math.msu.su*

FAN, AI HUA Sur la L^p convergence des martingales liées au recouvrement

FERRARI, P. A. and FONTES, L. R. G. Poissonian approximation for the tagged particle in asymmetric simple exclusion • *pablo@ime.usp.br*

FU, MICHAEL C. and HU, JIAN-QIANG On unbounded hazard rates for smoothed perturbation analysis

GANI, JOSEPH and YAKOWITZ, SID Error bounds for deterministic approximations to Markov processes, with applications to epidemic models

GESKE, MARK X., GODBOLE, ANANT P., SCHAFFNER, ANDREW A. and SKOLNICK, ALLISON M. Compound Poisson approximations for word patterns under Markovian hypotheses • *anant@math.mtu.edu*

GLASSERMAN, PAUL and YAO, DAVID D. The stochastic vector equation

GOLDSTEIN, LARRY and RINOTT, YOSEF Multivariate normal approximations by Stein's method and size bias couplings • *lgoldste@hto.usc.edu*

GOSSELIN, FRÉDÉRIC Two classes of subcritical population-size- dependent Bienaymé–Galton–Watson branching processes • *gosselin@cefe.cnrs-mop.fr*

GRIPENBERG, GUSTAF and NORROS, ILKKA On the prediction of fractional Brownian motion • *Gustaf.Gripenberg@helsinki.fi*

GRUET, J.-C. and SHI, Z. Some asymptotic results for exponential functionals of Brownian motion

GUILLEMIN, FABRICE, MAZUMDAR, RAVI R. and SIMONIAN, ALAIN On heavy traffic approximations for transient characteristics of $M/M/\infty$ queues • *guillemin@lannion.cnet.fr*

GUTIERREZ JAIMEZ, R., ROMAN ROMAN, P. and TORRES RUIZ, F. A note on the Volterra integral equation for the first-passage-times probability density • *andresgc@goliat.ugr.es*

HAIGH, JOHN More on n-point, win-by-k games • *J.Haigh@sussex.ac.uk*

HANIN, L. G., KLEBANOV, L. B. and YAKOVLEV, A. YU. Randomized multihit models and their identification

HEYMAN, DANIEL P. A decomposition theorem for infinite stochastic matrices

HINES, W. G. S. Comment on: Mutations, perturbations and evolutionarily stable strategies • *ghines@uoguelph.ca*

HO, HWAI-CHUNG and HSING, TAILEN On the asymptotic joint distribution of the sum and maximum of stationary normal random variables

HOMBLE, PATRICK and MCCORMICK, WILLIAM P. Weak limit results for the extremes of a class of shot noise processes • *bill@rolf.stat.uga.edu*

HU, TAIZHONG Stochastic comparisons of order statistics under multivariate imperfect repair

HÜSLER, J. A note on a model for restoring a destroyed region

IGAKI, NOBUKO, SUMITA, USHIO and KOWADA, MASASHI Shock models with multiple system states • *igaki@tezukayama-u.ac.jp*

JACKA, S. D. and ROBERTS, G. O. Weak convergence of conditioned processes on a countable state space • *s.d.jacka@csv.warwick.ac.uk*

JAKEMAN, ERIC, PHAYRE, SEAN and RENSHAW, ERIC The evolution and measurement of a population of pairs • *eric@stams.strathclyde.ac.uk*

JOYCE, PAUL Robustness of the Ewens sampling formula

KALAMKAR, V. A. Minification processes with discrete marginals

KARPELEVITCH, F. I. and KREININ, A. Asymptotic analysis of queueing systems with identical service

KASPI, HAYA and KELLA, OFFER Stability of feed-forward fluid networks with Lévy inputs

KATZENBEISSER, W. and PANNY, W. Simple random walk statistics Part I: Discrete time results

KOC, CEMAL Recurring-with-carry sequences

KOFMAN, D. and KOREXLIOGLU, H. Some EATA properties for marked point processes

KOLONKO, M. A piecewise Markovian model for simulated annealing with stochastic cooling schedules • *kolonko@informatik.uni-hildesheim.de*

KONSTANTOPOULOS, TAKIS and ZAZANIS, MICHAEL A discrete time proof of Neveu's exchange formula

KOUTRAS, M. V. On a Markov chain approach for the study of reliability structures

LEE, SHIOWJEN, DURHAM, S. and LYNCH, J. On the calculation of the breaking strength distribution of a fibrous composite

LEE, CHINSAN and YANG, GRACE L. A multitype irreversible age- dependent branching process and its applications • *gly@math.umd.edu*

LEFEVRE, CLAUDE and UTEV, SERGEY Comparing partial and iterated sums of exchangeable Bernoulli random variables

LI, XUNJING and TANG, SHANJIAN General necessary conditions for partially observed optimal stochastic controls • *xli@solaris.fudan.edu.cn*

LIN, GWO DONG On weak convergence within a Lorenz ordering family of distributions • *gdlin@stat.sinica.edu.tw*

LIN, XIAODONG Tail of compound distributions and excess time • *sheldon@utstat.toronto.edu*

LINDVALL, TORGNY and ROGERS, L. C. G. On coupling of random walks and renewal processes • *lindvall@math.chalmers.se*

MARLOW, NORMAN A. and TORTORELLA, MICHAEL Some general characteristics of two-state reliability models for maintained systems

MASSÉ, BRUNO Invariance principle for the deviation between the probability content and the interior points proportion of a random convex hull • *bmasse@lma.univ-littoral.fr*

MENG, FAN C. More on optimal allocation of components in coherent systems

MORI, TAMAS F. Bonferroni inequalities and deviations of discrete distributions

NIEMIRO, WOJCIECH Tail events of simulated annealing Markov chains

O'NEILL, PHILIP Strong approximations for some open population epidemic models • *P.ONeill@bradford.ac.uk*

PAPANGELOU, F. Large deviations and the Bayesian estimation of higher order Markov transition functions

PENG, NAN FU Spectral representations of the transition probability matrices for continuous time finite Markov chains • *nfpeng@twnctu01.bitnet*

PHELAN, MICHAEL J. A Markov process and a martingale problem • *phelan@wharton.upenn.edu*

PHELAN, MICHAEL J. A Girsanov transformation for birth and death on a Brownian flow • *phelan@wharton.upenn.edu*

PIERRE LOTI VIAUD, DANIEL Random perturbations of recursive sequences with an application to an epidemic model • *pilovi@ccr.jussieu.fr*

Forthcoming papers

RODRIGUES, ELIANE R. Convergence to stationary state for the move-to-front scheme under dependent request sequences

RODRIGUES, ELIANE R. The performance of the move-to-front scheme under some particular forms of Markov requests • *eliane@gauss.matem.unam.mx*

ROGERS, L. C. G. and SHI, Z. The value of an Asian option • *L.C.G.Rogers@maths.bath.ac.uk*

ROTERS, MARKUS An optimal stopping problem for random walks with non-zero drift

ROUGHAN, MATTHEW An analysis of a modified $M/G/1$ queue using a martingale technique • *roughan@cssip.edu.au*

SCHMIDLI, HANSPETER Lundberg inequalities for a Cox model with a piecewise constant intensity • *schmidli@ma.hw.ac.uk*

SESHADRI, SRIDHAR A sample path analysis of the delay in the $M/G/C$ system • *sseshadr@stern.nyu.edu*

SHEU, SHEY-HUEI A modified block replacement policy with two variables and general random minimal repair cost

STEFANOV, VALERI T. Mean passage time for tridiagonal transition matrices

TSAKLIDIS, G. The evolution of the attainable structures of a continuous time homogeneous Markov system with fixed size

VALIVETI, R. S., OOMMEN, B. J. and ZGIERSKI, J. R. Adaptive linear list reorganization under a generalized query system • *oommen@scs.carleton.ca*

VELLAISAMY, P. and CHAUDHURI, B. Poisson and compound Poisson approximations for random sums of random variables • *bikram@cc.iitb.ernet.in*

VOIT, MICHAEL Asymptotic distributions for the Ehrenfest urn and related random walks

WANG, Y. H. and JI, SHUIXIN Limit theorems for the number of occurrences of consecutive k successes

WARREN, DI and SENETA, E. Peaks and Eulerian numbers in a random sequence • *seneta_e@maths.su.oz.au*

WEISSMAN, ISHAY Records from a power model of independent observations

WILLMOT, GORDON E. A nonexponential generalization of an inequality arising in queueing and insurance risk

YAO, YI-CHING On Kingman's characteristic functional approach to Rényi's characterization of Poisson processes • *yao@statsun.stat.colostate.edu*

ZAJIC, TIM Large exceedences for uniformly recurrent Markov-additive processes and strong-mixing stationary processes • *zajic@or.stanford.edu*

ZEIFMAN, A. On the estimation of probabilities for birth and death processes • *zai@vgpi.vologda.su*

ZHANG, YU Continuity of percolation probability in $\infty + 1$ dimensions

A similar list of papers accepted for publication in *Advances in Applied Probability* now appears at the end of each issue of that journal.

https://doi.org/10.1017/S0021900200103018 Published online by Cambridge University Press

ADVANCES IN APPLIED PROBABILITY

The main function of AAP is to define areas of recent progress and potential development in applied probability. The Editorial Board would like to encourage the submission of review papers summarising and coordinating recent results. In addition to review papers, AAP is also a medium of publication for

- longer research papers, which may include expository material
- expository papers on branches of mathematics of interest to probabilists
- papers outlining areas in which probability models can be usefully developed
- papers presented at conferences which do not publish their proceedings
- letters to the editor on any appropriate topic

AAP now also includes a section devoted to stochastic geometry and statistical applications. Volume 27 Number 2 of AAP contains the following papers:

Subscription rates (per volume) for AAP are the same as for JAP (see the inside back cover). A discount of 10% is allowed for subscribers who order both journals at the same time directly from the Applied Probability office. A detailed price list, including back issues, is available on request. Payment by credit card or by cheque (on a UK, US or Australian bank) is accepted.

All orders, enquiries, submissions and correspondence should be sent to:

Executive Editor, Applied Probability
School of Mathematics and Statistics
The University, Sheffield S3 7RH, UK

SUBSCRIPTION RATES

Subscription rates (post free) for the 1995 volume of the *Journal* are as follows:

US$169.80; $A237.00; £110.26 for libraries and institutions;
US$56.60; $A79.00; £36.85 for individuals belonging to a recognised scientific society.

Members of the London Mathematical Society should apply direct to the Secretary of the Society for copies of the *Journal*.

Please send all enquiries to: Applied Probability, School of Mathematics and Statistics, The University, Sheffield S3 7RH, UK.

We can provide back issue prices on application. Cheques, money orders, etc. should be made out to APPLIED PROBABILITY. Payment is accepted in US, UK or Australian currency.

NOTES FOR CONTRIBUTORS

Papers published in the *Journal* are of two kinds:

(1) *research papers* not exceeding 20 printed pages;

(2) *short communications* of a few printed pages in the nature of notes or brief accounts of work in progress.

Review papers, *longer research papers* and *letters to the editor* are published in *Advances in Applied Probability*, a companion journal. (Note: Letters relating specifically to papers which have appeared in the *Journal of Applied Probability* will continue to appear in the *Journal*.)

The editors may publish accepted papers in either journal, according to the space available, in order to meet the 15-month deadline in publication referred to below.

Submission of papers

Papers submitted to the Applied Probability journals are considered on the understanding that they have not been published previously and are not under consideration by another publication. Papers will not be reprinted without the written permission of the Trust. It is the policy not to accept for publication papers which cannot appear in print within 15 months of the date of receipt of the final version. Fifty reprints of each paper will be provided free; additional reprints are available at cost.

Papers should be written in English or French; papers in other languages may be accepted by the editors, but will appear (subject to the author's agreement) in English or French translation. Please supply *three* double-spaced hard copies, at least one of which should be printed on one side of the paper only. The paper should include: (1) a short abstract of approximately 4–10 lines giving a non-mathematical description of the subject matter and results; (2) list of keywords detailing the contents for the purpose of computerised information retrieval; (3) primary and secondary classifications according to the 1991 Mathematics Subject Classification, to be found in the 1990 Annual Index of *Mathematical Reviews*.

Authors are advised to consult *The Author's Guide to the Applied Probability Journals* when preparing papers for submission. A copy of this guide may be obtained free of charge from the Applied Probability Office.

For efficiency in processing, authors are requested to send all submissions to the Applied Probability Office in Sheffield, rather than to individual editors. The address for all submissions is:

Executive Editor, Applied Probability, School of Mathematics and Statistics,
The University, Sheffield S3 7RH, UK.

COPYRIGHT

Volume 32 Number 2

Published by the **Applied Probability Trust** in association with the **London Mathematical Society**

ISSN 0021–9002